

PRELIMINARY DETERMINATION  
ON PERMIT APPLICATION

Date of Mailing: July 12, 2019

Name of Applicant: ONEOK Elk Creek Pipeline, L.L.C. and ONEOK Bakken Pipeline, L.L.C.

Source: Baker II Pigging Station and Baker I Pump Station

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Permit Application Number 5226-00.

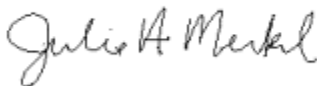
Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Quality Bureau (Bureau) of the Department at the address in the footer of this cover letter. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by July 29, 2019. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

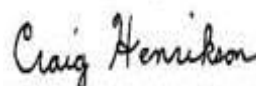
Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the Bureau's office in Helena. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,



Julie A. Merkel  
Permitting Services Section Supervisor  
Air Quality Bureau  
(406) 444-3626



Craig Henrikson P.E.  
Environmental Engineer  
Air Quality Bureau  
(406) 444-6711

JM:CH  
Enclosures

## MONTANA AIR QUALITY PERMIT

Issued To: ONEOK Elk Creek Pipeline, LLC & ONEOK Bakken Pipeline, LLC 100 West Fifth Street Tulsa, OK, 74103	MAQP: #5226-00 Application Complete: 6/27/2019 Preliminary Determination Issued: 7/12/2019 Department's Decision Issued: Permit Final:
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A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to ONEOK Elk Creek Pipeline, LLC and ONEOK Bakken Pipeline, LLC (collectively identified as ONEOK), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### Section I: Permitted Facilities

#### A. Permitted Equipment

ONEOK proposes to install and operate at the Baker II Pigging Station one (1) pig receiver, one (1) pig launcher, and various piping components. The pigging activities associated with the Baker II Pigging Station will be controlled by the existing flare at the Baker I Pump Station. ONEOK also proposes to permit the existing equipment located at the Baker I Pump Station. Baker I Pump Station includes (3) electric pumps, one (1) pig receiver; and one (1) pig launcher; various piping components; and the existing flare. All pigging events, pump strainer blowdowns, pump blowdowns, and scheduled maintenance activities will be routed to the common flare. The two sites are being permitted as a single facility because both sites share the same Standard Industrial Classification code, are co-located on adjacent or contiguous property as they are within a quarter mile of each other, and are under common control. The Baker II Pigging Station would serve the Elk Creek Natural Gas Liquids Pipeline and the Baker I Pump Station serves the existing Bakken Pipeline.

Emissions from this facility consist mainly of fugitive emissions and a very small amount of combustion products from the flare used to control emissions. Because the pumps are electric, this facility does not have the emissions or permit conditions typically associated with compressor engines.

#### B. Plant Location

This facility is to be located approximately 13 miles northwest of Baker, Montana, in Section 14, Township 9 North, Range 58 East, in Fallon County, 46.534747°N, latitude and -104.390016°W, longitude.

### Section II: Conditions and Limitations

#### A. Conditions

1. Each valve, flange or other connection, compressor seal, and other such source of fugitive volatile organic compound (VOC) emissions from leaks shall be inspected quarterly for leaks, and all leaks repaired as soon as

reasonably practicable. Inspection methods may include utilizing sight, sound, or smell, soap bubble methods, Method 21 organic vapor analyzers, or optical gas-imaging cameras, to actively inspect for and detect leaks. For any two consecutive quarters with no leaks detected, the inspections may thereafter be conducted every 6 months beginning with the next quarter, until a leak is observed. No less than 30 days shall separate each inspection. Inspections shall be recorded in a log including noting the inspection method(s) utilized, results of the inspection, the date the inspection was made, and the individual performing the inspection. The same log shall be used to record the date of repair and a description of the repair (ARM 17.8.752).

2. The facility shall be designed and operated such that volatile organic compounds from the pig launchers and pig receivers, pumps and pump strainer/seal flush filter change blowdowns, and valve blowdowns, are either recovered with 95% or greater efficiency, or directed to and combusted in a flare (ARM 17.8.752).
3. The flare shall be designed and operated for no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours (ARM 17.8.752).
4. Within 180 days of commencement of operation of the Baker II Pigging Station, ONEOK shall perform a Method 22 test while the flare is operating. Thereafter, ONEOK shall perform Method 22 tests upon request (ARM 17.8.105 and ARM 17.8.749).
5. ONEOK shall perform a final component count and submit a report of the final component count, within 180 days of finalizing construction of the facility (ARM 17.8.749). This information will be used to ensure the MAQP did not underestimate potential emissions, and for use in estimating actual emissions, as will be required by Section II.C.1 (ARM 17.8.749, ARM 17.8.505).
6. ONEOK shall maintain records of the number of events per month for the two sites, and the rolling 12-month total by month. Events are defined as pig launching, pig receiving, smart pig launches, all blowdowns, and pump strainer/seal flush filter changes. Such records shall be made by no later than the 25<sup>th</sup> of each month for the preceding month. ONEOK is not limited to the number of events as submitted in the application emission inventory as the HAP emissions were modeled at twice the number of events included in the application (ARM 17.8.749 and ARM 17.8.505).

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. ONEOK shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. ONEOK shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include the addition of a new emissions unit, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by ONEOK as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request. These records may be stored at a location other than the plant site upon approval by the Department (ARM 17.8.749).

D. Notification

1. ONEOK shall notify the Department in writing of the date of commencement of operation of the Baker II Pigging Station within 15 days of commencement of operation.

Section III: General Conditions

- A. Inspection – ONEOK shall allow the Department’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment such as Continuous Emission Monitoring Systems (CEMS) or Continuous Emission Rate Monitoring Systems (CERMS), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if ONEOK fails to appeal as indicated below.

- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving ONEOK of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department’s decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department’s decision on the application is final 16 days after the Department’s decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by ONEOK may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit (MAQP) Analysis  
ONEOK Elk Creek Pipeline, LLC & ONEOK Bakken Pipeline, LLC  
MAQP #5226-00

I. Introduction/Process Description

ONEOK proposes to install and operate at the Baker II Pigging Station one (1) pig receiver, one (1) pig launcher, and various piping components. The pigging activities associated with the Baker II Pigging Station will be controlled by the existing flare at the Baker I Pump Station. ONEOK also proposes to permit the existing equipment located at the Baker I Pump Station. Baker I Pump Station includes (3) electric pumps, one (1) pig receiver; and one (1) pig launcher; various piping components; and the existing flare. All pigging events, pump strainer blowdowns, pump blowdowns, and scheduled maintenance activities are routed to the common flare. The two sites are being permitted as a single facility because both facilities share the same Standard Industrial Classification code, are co-located on adjacent or contiguous property as they are within a quarter mile of each other, and are under common control. The Baker II Pigging Station would serve the Elk Creek Natural Gas Liquids Pipeline and the Baker I Pump Station serves the existing Bakken Pipeline.

In pipeline transportation, pigging is the practice of using devices known as pigs or scrapers to perform various maintenance operations, including cleaning the pipeline of buildup, and inspecting the pipeline. The stations where pigs are sent and received vent emissions of volatile organic compounds and hazardous air pollutants. ONEOK has proposed to send these emissions to a flare to control these emissions.

Emissions from this facility consist mainly of fugitive emissions from various piping components and a very small amount of combustion products from the flare used to control emissions. Because the pumps are electric, this facility does not have the emissions or permit conditions typically associated with compressor engines.

This facility is to be located approximately 13 miles northwest of Baker, Montana, in Section 14, Township 9 North, Range 58 East, in Fallon County, 46.534747°N, latitude and 104.390016°W, longitude. The Baker II Pigging Station is to be located less than ¼ mile from the Baker I Pump Station, therefore, identifying the two sites as a single facility is consistent with the Environmental Protection Agency (EPA) [federal register notice](#) clarifying the meaning of the term ‘adjacent’ that is used to determine the scope of a stationary source for sources in the oil and gas industry.

A. Response to Public Comments (To be included if received)

Person/Group Commenting	Permit Reference	Comment	Department Response

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

ONEOK shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

ONEOK must not cause or contribute to a violation of any ambient air quality standard.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, ONEOK shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). ONEOK shall comply with any applicable NSPS. The Department is not aware of any subpart of 40 CFR 60 currently applicable to this facility.

a. 40 CFR 60, Subpart OOOOa:

This facility is not reported to contain any equipment which is an affected facility under these rules. Further, as a natural gas liquids related station, it does not appear that NSPS OOOOa would apply.



8. ARM 17.8.341 Emission Standards for Hazardous Air Pollutants. This source shall comply with the standards and provisions of 40 CFR Part 61, as appropriate. The Department is not aware of any subpart of 40 CFR 61 currently applicable to this facility.
  9. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, Emission Standards for Hazardous Air Pollutants. The Department is not aware of any subpart of 40 CFR 63 currently applicable to this facility.
- D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. ONEOK submitted the appropriate permit application fee for the current permit action.
  2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.
- An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.
- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. ONEOK has a PTE greater than 25 tons per year of Volatile Organic Compounds; therefore, an air quality permit is required.
  3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. ONEOK submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. ONEOK submitted an affidavit of publication of public notice for the May 31, 2019 issue of the *Fallon County Times*, a newspaper of general circulation in the Town of Baker in Fallon County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving ONEOK of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is

commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.
16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to the Department for incineration facilities subject to 75-2-215, Montana Code Annotated.

The Department conducted a Human Health Risk Assessment for this project. The results demonstrate that the emissions from the flare are expected to have negligible risk to human health, as defined by this rule. No individual pollutant concentration exceeds the Cancer Risk threshold of  $1.00\text{E-}06$ , and the sum of all Cancer Risk concentrations do not exceed  $1.00\text{E-}05$ , and further, the sum of the Chronic Non-cancer Reference Exposure Level hazard quotients is less than 1.0. As the flare only is operated for flaring events, a conservative estimate was applied to the annual concentration factor using the modeled 1-hour maximum concentration. Average emission rates assuming 98 percent destruction of the primary HAPs were used along with the average heat release from the combusted flare gas. Contributions from natural gas combustion were included using emission factors from AP-42 Table 1.4-3.

Speciated Emissions:

<u>98% Destructed HAPS</u>	<u>Emission Factor</u>	<u>Average HAP Emission Rate (lb/hr) flare discharge during operation</u>	<u>Fraction of Total Emissions</u>	<u>Speciated Concentrations (ug/m3)</u>	<u>Speciated Concentrations (ug/m3) Add Common Pollutants</u>
-	% of VOC to Flare	<b>8.67</b>	-		
n-Hexane	1.45	2.52E-03	0.8030	0.2016	0.2167
Benzene	0.12	2.00E-04	0.0638	0.0160	0.0160
Ethylbenzene	0.001	1.98E-06	0.0006	0.0002	0.0002
Toluene	0.10	1.67E-04	0.0533	0.0134	0.0134
Xylenes	0.02	3.44E-05	0.0110	0.0028	0.0028
<b><u>Natural Gas Combustion Related Emissions Including Combustion Formed HAPS</u></b>	lb/MMscf				
2-methylnaphthalene	2.40E-05	2.52E-09	8.01E-07	2.01E-07	2.01E-07
3-methylchloranthrene	1.8E-06	1.89E-10	6.01E-08	1.51E-08	1.51E-08
7,12 Dimethylbenz(a)anthracene	1.60E-05	1.68E-09	5.34E-07	1.34E-07	1.34E-07
Acenaphthene	1.8E-06	1.89E-10	6.01E-08	1.51E-08	1.51E-08
Acenaphthylene	1.8E-06	1.89E-10	6.01E-08	1.51E-08	1.51E-08
Anthracene	2.4E-06	2.52E-10	8.01E-08	2.01E-08	2.01E-08
Benz(a)anthracene	1.8E-06	1.89E-10	6.01E-08	1.51E-08	1.51E-08
Benzo(a)pyrene	1.2E-06	1.26E-10	4.00E-08	1.01E-08	1.01E-08
Benzo(b)fluoranthene	1.8E-06	1.89E-10	6.01E-08	1.51E-08	1.51E-08
Benzo(g,h,i)perylene	1.2E-06	1.26E-10	4.00E-08	1.01E-08	1.01E-08
Benzo(k)fluoranthene	1.8E-06	1.89E-10	6.01E-08	1.51E-08	1.51E-08
Chrysene	1.8E-06	1.89E-10	6.01E-08	1.51E-08	1.51E-08
Dibenzo(a,h)anthracene	1.2E-06	1.26E-10	4.00E-08	1.01E-08	1.01E-08
Dichlorobenzene	1.20E-03	1.26E-07	4.00E-05	1.01E-05	1.01E-05
Fluoranthene	3.00E-06	3.14E-10	1.00E-07	2.51E-08	2.51E-08
Fluorene	2.80E-06	2.93E-10	9.34E-08	2.35E-08	2.35E-08
Formaldehyde	7.50E-02	7.86E-06	2.50E-03	6.28E-04	6.28E-04
Indeno(1,2,3-cd)pyrene	1.80E-06	1.89E-10	6.01E-08	1.51E-08	1.51E-08
Naphthalene	6.10E-04	6.39E-08	2.04E-05	5.11E-06	5.11E-06
Phenanthrene	1.70E-05	1.70E-05	5.41E-03	1.36E-03	1.36E-03
Pyrene	5.00E-06	5.24E-10	1.67E-07	4.19E-08	4.19E-08
Benzene	2.10E-03	2.20E-07	7.01E-05	1.76E-05	Addressed above
Toluene	3.40E-03	3.56E-07	1.13E-04	2.85E-05	Addressed above

Hexane	1.8	1.89E-04	6.01E-02	1.51E-02	Addressed above
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TOTAL 0.003140299 lbs/hr

	Negligible Risk Assessment (1)			
	Cancer URF (2)	Cancer Risk (3)	CNCREL (4) (ug/m3)	CNCREL Quotient (5)
n-Hexane	N/A	N/A	700	3.10E-04
Benzene	0.0000078	1.25E-07	30	5.35E-04
Ethylbenzene	0.0000025	3.96E-10	1000	1.59E-07
Toluene	N/A	N/A	5000	2.68E-06
Xylenes	N/A	N/A	100	2.75E-05
Natural Gas Combustion Related Emissions Including Combustion Formed HAPS				
2-methylnaphthalene	N/A	N/A	N/A	
3-methylchloranthrene	0.0063	9.50E-11	N/A	
7,12 Dimethylbenz(a)anthracene	0.071	9.52E-09	N/A	
Acenaphthene	N/A	N/A	N/A	
Acenaphthylene	N/A	N/A	N/A	
Anthracene	N/A	N/A	N/A	
Benz(a)anthracene	0.00006	9.05E-13	N/A	
Benzo(a)pyrene	0.00006	6.03E-13	0.002	5.03E-06
Benzo(b)fluoranthene	0.00006	9.05E-13	N/A	
Benzo(g,h,i)perylene	N/A	N/A	NA	
Benzo(k)fluoranthene	0.000006	9.05E-14	NA	
Chrysene	0.000011	1.66E-13	N/A	
Dibenzo(a,h)anthracene	0.00011	1.11E-12	N/A	
Dichlorobenzene	0.000011	1.106E-10	800	1.26E-08
Fluoranthene	N/A	N/A	N/A	
Fluorene	N/A	N/A	N/A	
Formaldehyde	0.000013	8.16935E-09	9.8	6.41E-05
Indeno(1,2,3-cd)pyrene	0.00006	9.04912E-13	NA	
Naphthalene	0.000034	1.73777E-10	3	1.70E-06
Phenanthrene	N/A	N/A	N/A	
Pyrene	N/A	N/A	N/A	
Benzene	See above	See above	See above	See above
Toluene	See above	See above	See above	See above
Hexane	See above	See above	See above	See above
	Sum	1.4362E-07	Sum	9.46E-04

Health Risk	Total Cumulative	Individual
Cancer Risk:	< 1.0E-05	< 1E-06
CNCREL Quotient:	< 1.0	NA

<b>PASS</b>	<b>X</b>
<b>FAIL</b>	

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications-Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because this facility is not a listed source and the facility's PTE is below 250 tons per year of any conventional pollutant.

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability:

Since ONEOK requested the two sites be aggregated as a single facility and because they are under common ownership, same SIC and within ¼ mile of each other, the MAQP considers the two sources a single facility.

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
  - a. PTE > 100 tons/year of any pollutant;
  - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #5226-00 for ONEOK, the following conclusions were made:

- a. The facility's PTE is less than 100 tons/year for any pollutant.
- b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.
- c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
- d. This facility is not subject to any current NSPS.
- e. This facility is not subject to any current NESHAP.
- f. This source is not a Title IV affected source, or a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that ONEOK will be a minor source of emissions as defined under Title V.

### III. BACT Determination

A BACT determination is required for each new or modified source. ONEOK shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was submitted by ONEOK in permit application #5226-00, addressing some available methods of controlling VOC emissions from the facility. The Department reviewed these methods, as well as previous BACT determinations. The following control options have been reviewed by the Department in order to make the following BACT determination.

#### VOC and HAPs

VOC and HAP emissions occur as the result of pigging operations, blowdowns from pumps, valves, seal flush filter changes, sampling, and from pipeline components such as valves, flanges and other connections, pump seals, and other such components. The gas composition from the natural gas liquids pipeline is expected to be approximately 90% non-methane and non-ethane hydrocarbons (88% based on a sample of flare gas composition).

ONEOK proposed to control emissions related to blowdowns from the pig receiver, pig launcher, pump strainers, pumps, valves, and seal flush changes with a flare. A properly designed and operated flare can be expected to achieve a 98% control efficiency. As one of the top control technologies available, the Department concurred with no further analyses requested.

For VOC generated by fugitive equipment leaks, a leak detection and repair program was assigned. A leak detection and repair program ensures that routine inspections to identify any leaking components, and appropriate reaction to those leaks, occurs on a timely basis, minimizing these fugitive emissions.

The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.



#### IV. Emission Inventory

##### Baker I Pump Station

Description	NO <sub>x</sub>		CO		VOC		HAP	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Component Fugitives	-	-	-	-	1.70	7.45	.03	.13
Maintenance	-	-	-	-	Controlled by Flare			
Seal Flush Filter Change	-	-	-	-	Controlled by Flare			
Flare	0.41	0.04	0.81	0.08	8.88	0.87	Neg.	Neg.
Pump Seal Losses	-	-	-	-	-	0.01	-	1.87E-04
<b>Total Emissions from Baker I Pump Station</b>	0.41	0.04	0.81	0.08	10.58	8.33	0.03	0.13

##### Baker II Pigging Station

Description	NO <sub>x</sub>		CO		VOC		HAP	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Component Fugitives	-	-	-	-	0.34	1.48	.01	.02
Pigging	-	-	-	-	Controlled by Flare			
Flare	0.66	0.04	1.32	0.08	9.54	0.57	Neg.	Neg.
<b>Total Emissions from Baker II Pigging Station</b>	0.66	0.04	1.32	0.08	9.88	2.05	0.01	0.02

##### Combined Emissions Inventory

Description	NO <sub>x</sub>		CO		VOC		HAP	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
<b>Total Emissions from Baker I Pump Station and Baker II Pigging Station</b>	1.07	.08	2.13	0.16	20.46	10.38	.03	.15

\*\* CO = carbon monoxide  
 HAPs = hazardous air pollutants  
 lb = pound  
 NO<sub>x</sub> = oxides of nitrogen  
 TPY = tons per year  
 VOC = volatile organic compounds  
 yr = year

An emissions inventory spreadsheet is located within the application files for MAQP #5226-00, received as application correspondence on June 7, 2019.

V. Existing Air Quality

Fallon County is currently designated as attainment/unclassifiable for all pollutants.

VI. Ambient Air Impact Analysis

The Department determined, based on the amount of allowable emissions, that the impacts from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Air, Energy & Mining Division**  
**Air Quality Bureau**  
**P.O. Box 200901, Helena, Montana 59620**  
**(406) 444-3490**

**ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* ONEOK Elk Creek Pipeline, LLC & ONEOK Bakken Pipeline, LLC  
100 West Fifth Street  
Tulsa, OK, 74103

*Montana Air Quality Permit number (MAQP):* 5226-00

*EA Draft:* 7/12/2019

*EA Final:*

*Permit Final:*

1. *Legal Description of Site:* Section 14, Township 9N, Range 58E, approximately thirteen (13) miles northwest of Baker, Fallon County, Montana at latitude 46.534747°N, longitude -104.390016°W.
2. *Description of Project:* Construction of a pigging station on the ONEOK Elk Creek Pipeline to be co-located with an existing pumping station on the ONEOK Bakken Pipeline known as Baker I Pump Station. The new pigging station will be known as the Baker II Pigging Station.
3. *Objectives of Project:* Provide infrastructure to support the natural gas liquids pipelines known as the ONEOK Elk Creek Pipeline and ONEOK Bakken Pipeline.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. ONEOK has complied with all applicable requirements in obtaining a Montana Air Quality Permit, therefore, the “no-action” alternative was eliminated from further consideration. Other alternatives considered were discussed in the BACT analysis of the permit.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in MAQP #5226-00.

As required under the Sage Grouse Executive Order, the proposed project information was submitted to, and reviewed by the Montana Sage Grouse Oversight Team (MSGOT). The results of the MSGOT review were submitted to the Department with application materials for the proposed project. Reference Section 7.H for details.

6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. *SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:* The following comments have been prepared by the Department.

A. *Terrestrial and Aquatic Life and Habitats*

The amount of allowable emissions which would be permitted in MAQP #5226-00 would be very small on an industrial scale. The amount of allowable emissions after application of control technology would be less than the permitting thresholds. The Department would not expect any significant impact to terrestrial and aquatic life and habitats from the amount of emissions which would be permitted.

Additional analysis regarding species of special concern is provided in Section G.

As required under the Sage Grouse Executive Order, the proposed project information was submitted to and reviewed by the Montana Sage Grouse Oversight Team (MSGOT). The results of the MSGOT review were submitted to the Department with application materials for the proposed project. Reference Section 7.H for details.

B. *Water Quality, Quantity and Distribution*

The project site is not located nearby surface waters and no discharges into surface waters is expected. Existing drainage patterns would not be changed. No significant water usage is expected as a part of normal operations of the site. No significant impacts would be expected to water quality, quantity, or distribution.

C. *Geology and Soil Quality, Stability and Moisture*

The project site for the existing Baker I Pump Station is industrial and the site for the Baker II Piggings station is agricultural. The post-developed site would be graded and surfaced with aggregate. The project site is relatively small at approximately 2.1 acres total. Impacts to geology, soil quality, stability, and moisture would not be expected to be significant.

D. *Vegetation Cover, Quantity, and Quality*

The project site is currently pasture. The post-developed site would be graded and surfaced with aggregate. The project site is relatively small at approximately 2.1 acres. Emissions from normal operations at the site would be mostly volatile organic compounds, with post-control allowable emissions less than permitting thresholds. Impacts to vegetation cover, quantity, and quality, would not be expected to be significant.

E. *Aesthetics*

The post-project emissions would not be visible. A flare at the existing Baker I Pump Station would be utilized by both the Baker I Pump Station and the proposed Baker II Piggings Station. Some noise would be present near the facility, however, significant noise beyond the boundaries would not be expected. The pumps are electrically driven, eliminating noise from combustion engines.

Construction activity would be present short term. The overall project size is relatively small. Impacts to aesthetics would not be expected to be significant.

F. *Air Quality*

Post project allowable emissions levels are less than the levels that trigger the requirement to obtain a Montana Air Quality Permit. No significant impacts are expected to air quality.

G. *Unique Endangered, Fragile, or Limited Environmental Resources*

The amount of allowable emissions which would be permitted by MAQP #5226-00 would be small on an industrial scale. Post-control potential emissions would be less than the permitting thresholds for an MAQP. No significant impacts to unique endangered, fragile, or limited environmental resources would be expected from the normal operations emissions from the facility.

The Montana Natural Heritage Program website was reviewed to determine any sensitive species. Section 14 of Township 9N and Range 58E was initially selected and the Environmental Summary report was selected. Species of concern include Greater Sage Grouse and Sharp-tailed Grouse. There were numerous other potential species identified which match the type of habitat in the selected area.

Sage Grouse have been observed in the area. As required under the Sage Grouse Executive Order, the proposed project information was submitted to, and reviewed by the Montana Sage Grouse Oversight Team (MSGOT). The results of the MSGOT review were submitted to the Department with application materials for the proposed project. Reference Section 7.H for details.

H. *Sage Grouse Executive Order*

As required under Executive Order, the proposed project was reviewed by the MSGOT and that information was submitted by the applicant with their application materials.

ONEOK opted to make a contribution to the Stewardship Account, as allowed by the Stewardship Act, instead of developing a permittee-responsible package to offset impacts. A total payment of \$169,622.12 was assessed for the Elk Creek Pipeline. Funds are to be deposited in the Stewardship Account. The Montana Sage Grouse Oversight Team awards these funds through the Stewardship Account grant process to conserve habitat and sage grouse populations in southeast Montana.

I. *Demands on Environmental Resource of Water, Air and Energy*

As discussed in Sections 7.B and 7.F above, no significant impacts to water or air quality is expected. Demand for energy in the form of electricity would be necessary to drive the electric powered pumps. Demands on water, air, and energy is not expected to be significant.

J. *Historical and Archaeological Sites*

The Department requested a search of the cultural resource information system from the State Historic Preservation Office. According to those records there has been one previously recorded site within the approximate designated search area. It is not within the specific proposed project site. In addition to the site there have been a few previously conducted cultural resource inventories done in the vicinity.

It is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If any structures are to be altered and are over fifty years old, standard recommendations are that they be recorded, and a determination of their eligibility be made.

Air emissions would be very small. The site would emit mainly volatile organic compounds. MAQP #5226-00 would require control of these emissions, with the resulting amount of allowable emissions very small on an industrial scale. Any impacts as a result of air emissions which would be authorized in MAQP #5226-00 would be expected to be very small, if any discernable amount at all.

K. *Cumulative and Secondary Impacts*

This project supports the Elk Creek Pipeline and Bakken Pipeline both carrying natural gas liquids. The Montana portion of the pipelines are primarily in Richland, Wibaux, Fallon, and Carter counties.

8. *SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:* The following comments have been prepared by the Department.

A. *Social Structures and Mores*

The project location is rural. No increase in employees is expected to be required as a result of this project. Impacts to social structures and mores, if any, would be expected to be minor.

B. *Cultural Uniqueness and Diversity*

The project location is rural. No increase in employees is expected to be required as a result of this project. Impacts to cultural uniqueness and diversity, if any, would be expected to be minor.

C. *Local and State Tax Base and Tax Revenue*

This project is part of both the Elk Creek Pipeline and the Bakken Pipeline. Positive impacts to tax revenue would be expected.

D. *Agricultural or Industrial Production*

This project is part of the Elk Creek Pipeline and the Bakken Pipeline. The Elk Creek pipeline is necessary because the existing Bakken parallel natural gas liquids pipeline is at capacity.

Impacts to agricultural or industrial production at the project location would be expected to be minor, if any at all.

E. *Human Health*

MAQP #5226-00 would be written in accord with rules designed to protect human health. The amount of allowable emissions contained in MAQP #5226-00 would be small on an industrial scale, less than permit triggering levels. No significant impact to human health would be expected.

F. *Access to and Quality of Recreational and Wilderness Activities*

The project is not located at or nearby wilderness or recreational access route. Normal operation emissions will not be visible, and would be in amounts that are very small on an industrial scale. Noise at the site would exist only at close range. Impacts to access of or quality of recreational and wilderness activities would be expected to be minor, if any.

G. *Quantity and Distribution of Employment*

No increase in the number of people employed by ONEOK would be expected as the result of this project. Temporary construction would be required. Impacts to quantity and distribution of employment, if any, would be expected to be minor.

H. *Distribution of Population*

No increase in the number of people employed by ONEOK would be expected as the result of this project. Temporary construction would be required. Impacts to distribution of population, if any, would be expected to be minor.

I. *Demands for Government Services*

The project would require a Montana Air Quality Permit and the associated administration of that permit. The project would consist of a minor source of emissions. Minor impacts would be expected.

J. *Industrial and Commercial Activity*

Short term construction activities would occur. Once construction would be complete, any impacts to industrial or commercial activity would be expected to be minor, if any at all.

K. *Locally Adopted Environmental Plans and Goals*

As required under the Sage Grouse Executive Order, the proposed project information was submitted to, and reviewed by the Montana Sage Grouse Oversight Team (MSGOT). The results of the MSGOT review were submitted to the Department with application materials for the proposed project. Reference Section 7.H for details.

The Department is not aware of any other locally adopted environmental plans and goals which this project would affect. MAQP #5226-00 would be issued in accord to applicable state rules which are designed to protect public health.

L. *Cumulative and Secondary Impacts*

This project supports the Elk Creek Pipeline and the Bakken Pipeline. The Montana portion of the project parallels ONEOK's existing Bakken Natural Gas Liquids pipeline, in Richland, Wibaux, Fallon, and Carter counties, and has been permitted through the appropriate authorities.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of the Baker II Pigging Station and operation of the existing Baker I Pump Station. MAQP #5226-00 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program – Montana Sage Grouse Conservation Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Quality Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Craig Henrikson  
Date: 7/3/2019